**In the Claims:**

1. (Original) A method for detecting data errors associated with a Content Addressable Memory (CAM) module, comprising:

   generating a key-based parity word and a key-based protection word after receiving a key, wherein the key-based parity word and the key jointly define a comparand;

   accessing a predetermined protection word corresponding to an address of a CAM module that contains data corresponding to the comparand in response to receiving the address from the CAM module; and

   comparing the predetermined protection word with the key-based protection word for facilitating issuance of an output error indication when the predetermined protection word is different than the key-based protection word.

2. (Original) The method of claim 1 wherein the key includes a 28-bit connection identifier.

3. (Original) The method of claim 1, further comprising:

   providing the comparand to the CAM module; and

   searching storage of the CAM module for the address that contains said data corresponding to the comparand.

4. (Original) The method of claim 1 wherein generating the key-based protection word includes generating a cyclical redundancy code.

5. (Original) The method of claim 1 wherein generating the key-based protection word includes generating a bit interleaved parity word.

6. (Original) The method of claim 1 wherein:

generating the key-based parity word is performed by a parity word generator of an input protection module; and

generating the key-based protection word is performed by a protection word generator of an output protection module.

7. (Original) The method of claim 6, further comprising:

storing a plurality of predetermined protection words in memory of the output protection module; and

wherein accessing the predetermined protection word includes searching said memory of the output protection module.

8. (Original) The method of claim 7 wherein comparing is performed by a comparator of the output protection module.

9. (Original) The method of claim 7, further comprising:

searching storage of the CAM module for the address containing data corresponding to the comparand;

providing the address to the output protection module in response to the address containing data corresponding to the comparand being identified in said storage; and

wherein accessing the predetermined protection word is performed after providing the address to the output protection module.

10. (Original) The method of claim 7, further comprising;

receiving an input error notification at an apparatus comprising at least one of the input error detection module and the output error detection module in response to failing to find the address corresponding to comparand in said storage, wherein the input error indication is provided by the CAM module to the apparatus.

11. (Original) The method of claim 1, further comprising:

issuing the output error indication in response to said comparing resulting in a determination that the predetermined protection word is different than the key-based protection word.

12. (Original) A method for detecting data errors associated with a Content Addressable Memory (CAM) module, comprising:

generating a key-based parity word and a key-based protection word after receiving a key at an input error detection module, wherein the key-based parity word and the key jointly define a comparand;

providing the comparand to a CAM module;

searching storage of the CAM module for an address containing data corresponding to the comparand;

providing the address to an output error detection module;

accessing a predetermined protection word corresponding to the address in response to receiving the address from the CAM module, wherein the predetermined protection word is stored in memory of the output error detection module; and

comparing the predetermined protection word with the key-based protection word for determining whether the predetermined protection word is the same as the key-based protection word.

13. (Original) The method of claim 12, further comprising:

issuing an output error indication when the predetermined protection word is different than the key-based protection word.

14. (Original) The method of claim 12, further comprising:

receiving an input error indication at an apparatus comprising at least one of the input error detection module and the output error detection module in response to failing to find the address corresponding to comparand in said storage of the CAM module.

15. (Original) The method of claim 14 wherein the input error indication is provided by the CAM module to the apparatus comprising at least one of the input error detection module and the output error detection module.

16. (Original) An apparatus adapted for detecting data errors associated with a Content Addressable Memory (CAM) module, comprising:

an input error detection module adapted for generating a key-based parity word after receiving a key, wherein the key-based parity word and the key jointly define a comparand that is provided to a CAM module; and

an output error detection module connected to the input error detection module, adapted for generating a key-based protection word after receiving the key and adapted for accessing a predetermined protection word corresponding to an address of a CAM module that contains data corresponding to the comparand in response to receiving the address from the CAM module.

17. (Original) The apparatus of claim 16 wherein:

the input protection module includes a parity word generator; and

the parity word generator performs generating the key-based parity word.

18. (Original) The apparatus of claim 17 wherein:

the parity word generator is adapted for generating cyclical redundancy codes; and

the key-based parity word is a cyclical redundancy code.

19. (Original) The apparatus of claim 17 wherein:

the parity word generator is adapted for generating bit interleaved parity codes; and

the key-based parity word is a bit interleaved parity code.

20. (Original) The apparatus of claim 16 wherein:

the input error detection module is connected to the CAM module; and

the input error detection module provides the comparand to the CAM module.

21. (Original) The apparatus of claim 16 wherein the output error detection module includes:

the output error detection module includes a protection word generator; and

the parity word generator performs generating the key-based protection word.

22. (Original) The apparatus of claim 21 wherein:

the output error detection module includes memory having a plurality of predetermined protection words stored therein; and

the predetermined protection word corresponding to the address of the CAM module that contains data corresponding to the comparand is accessed from said memory.

23. (Original) The apparatus of claim 22 wherein the output error detection module includes a comparator connected to the protection word generator and to said memory for enabling the predetermined protection word to be compared with the key-based protection word for facilitating issuance of an output error indication when the predetermined protection word is different than the key-based protection word.

24. (Previously presented) The apparatus of claim 23 wherein the output error detection module is further adapted for issuing the output error indication in response to said comparing resulting in a determination that the predetermined protection word is different than the key-based protection word.

25. (Original) The apparatus of claim 16 wherein the output error detection module is further adapted for comparing the predetermined protection word with the key-based protection word for facilitating issuance of an output error indication when the predetermined protection word is different than the key-based protection word.

26. (Original) The apparatus of claim 16 further comprising;

means for receiving an input error indication provided by the CAM module in response to failing to find the address corresponding to comparand in storage of the CAM module.

27. (Original) An apparatus adapted for detecting data errors associated with a Content Addressable Memory (CAM) module, comprising:

means for generating a key-based parity word, wherein the key-based parity word and the key jointly define a comparand;

means for receiving an input error indication provided by the CAM module in response to failing to find the address corresponding to comparand in storage of the CAM module;

means for enabling a predetermined protection word corresponding to an address of a CAM module that contains data corresponding to the comparand to be accessed in response to receiving the address from the CAM module;

means for generating a key-based protection word; and

means for comparing the predetermined protection word with the key-based protection word for facilitating issuance of an output error indication when the predetermined protection word is different than the key-based protection word.

28. (Original) An apparatus adapted for detecting data errors associated with a Content Addressable Memory (CAM) module, comprising:

a CAM module;

a connection manager connected to the CAM module, wherein the connection manager includes a data processor; and

a data processor program processable by the data processor, wherein the data processor program is adapted for enabling the data processor to facilitate:

generating a key-based parity word and a key-based protection word after receiving a key, wherein the key-based parity word and the key jointly define a comparand;

accessing a predetermined protection word corresponding to an address of the CAM module that contains data corresponding to the comparand in response to receiving the address from the CAM module; and

comparing the predetermined protection word with the key-based protection word for facilitating issuance of an output error indication when the predetermined protection word is different than the key-based protection word.

29. (Original) The apparatus of claim 28 wherein the key includes a 28-bit connection identifier.

30. (Original) The apparatus of claim 28 wherein the data processor program is further adapted for enabling the data processor to facilitate:

providing the comparand to the CAM module; and

searching storage of the CAM module for the address that contains said data corresponding to the comparand.

31. (Original) The apparatus of claim 28 wherein enabling the data processor to facilitate generating the key-based protection word includes enabling the data processor to facilitate generating a cyclical redundancy code.

32. (Original) The apparatus of claim 28 wherein enabling the data processor to facilitate generating the key-based protection word includes enabling the data processor to facilitate generating a bit interleaved parity word.

33. (Original) The apparatus of claim 28 wherein:

generating the key-based parity word is performed by a parity word generator of an input protection module; and

generating the key-based protection word is performed by a protection word generator of an output error detection module.

34. (Original) The apparatus of claim 33 wherein:

the data processor program is further adapted for enabling the data processor to facilitate storing a plurality of predetermined protection words in memory of the output error detection module; and

enabling the data processor to facilitate accessing the predetermined protection word includes enabling the data processor to facilitate searching said memory of the output error detection module.

35. (Original) The apparatus of claim 34 wherein comparing is performed by a comparator of the output error detection module.

36. (Original) The apparatus of claim 34 wherein the data processor program is further adapted for enabling the data processor to facilitate:

searching storage of the CAM module for the address containing data corresponding to the comparand; and

providing the address to the output error detection module in response to the address containing data corresponding to the comparand being identified in said storage;

wherein accessing the predetermined protection word is performed after providing the address to the output error detection module.

37. (Original) The apparatus of claim 34 wherein the data processor program is further adapted for enabling the data processor to facilitate:

receiving an input error notification at an apparatus comprising at least one of the input error detection module and the output error detection module in response to failing to find the address corresponding to comparand in said storage, wherein the input error indication is provided by the CAM module to the apparatus comprising at least one of the input error detection module and the output error detection module.

38. (Original) The apparatus of claim 28 wherein the data processor program is further adapted for enabling the data processor to facilitate:

issuing the output error indication in response to said comparing resulting in a determination that the predetermined protection word is different than the key-based protection word.